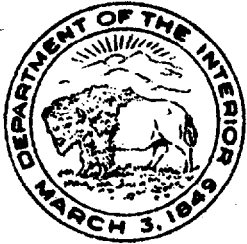


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DEPARTMENT OF THE INTERIOR INFORMATION SERVICE

FISH AND WILDLIFE SERVICE

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FWS HATCHERIES SHOW BIG INCREASE IN PRODUCTION OF TROUT

Research and improved management techniques are paying big dividends in the production of trout at Fish and Wildlife Service hatcheries, John L. Farley, Service Director, said today.

As examples, Mr. Farley pointed to the Leadville, Colorado, hatchery which in 1951 produced 3,163 pounds of trout but in 1955 produced 55,000 pounds, an increase of some 1,700 percent.

Other hatcheries listed by Mr. Farley, with the 1951 trout production in pounds followed by the 1955 figures, include:

Ennis, Montana, 30,000--184,000
Hagerman, Idaho, 46,000--158,000
Berlin, New Hampshire, 26,000--70,000
Williams Creek, Arizona, 51,000--76,000
Lamar, Pennsylvania, 16,000--76,000

The 1955 output at all Fish and Wildlife Service hatcheries producing trout was 1,244,000 pounds, compared with 473,000 pounds in 1951. The Service operates 24 hatcheries which produce trout only and another 19 at which some trout are produced in addition to either salmon or warm water fish. There are additional hatcheries for salmon only and others for warm water fish only.

While some of the increase in trout poundage is due to enlarged facilities, Mr. Farley declares that rigid application of improved hatchery management techniques developed by research is the principal contributing factor. These research findings include knowledge of trout metabolism and improved diet and feeding practices developed at Fish and Wildlife Service laboratories. The full utilization of rearing space and the development and use of improved hatchery equipment also have been responsible for some of the gains.

At the Leadville hatchery there were two other factors which contributed to the tremendous increase in poundage. One of these is a heater which holds the hatchery water at the proper temperature during the winter months and makes it

possible to transfer fingerlings instead of fry to the rearing ponds and lakes in the spring. The other is the utilization of the small natural lakes for rearing.

Heating units are now installed in the Berlin and Lamar hatcheries. The first such Fish and Wildlife Service project for artificially warming the hatchery water was at Spearfish, South Dakota. One of the objectives of trout propagation is to have the fish well into the fingerling stage by the time they are taken from the hatchery and placed in the rearing ponds. This gives them a chance to develop rapidly during the summer months, when water temperature is most suitable for rapid growth.

Trout eggs hatch and the young fish grow best in water between 50 degrees and 60 degrees Fahrenheit. The rule of thumb in trout propagation in relation to hatching time is "50 days at 50 degrees." In colder waters the hatching time is extended considerably.

The value of heating water to produce early growth and the utilization of the natural lakes for summer rearing is shown in the production figures. A year ago at the Leadville hatchery 150,000 fingerlings weighing 425 pounds were placed in a two-acre lake in May. When they were taken out in September, they weighed 16,500 pounds. Under normal—normal that is without the water heating—the hatch at Leadville would have been delayed several weeks, and the fish would have been placed into the rearing ponds as small fry when the summer was well advanced. This in turn would have meant that the fish would have only been large fingerlings in the fall.

Mr. Farley explained other data which shows the increase in hatchery efficiency. Only a few years ago it was hoped that the average hatchery could produce one pound of trout per cubic foot of water. Now many Service hatcheries produce from two to six pounds per cubic foot of water. Some years ago it took five pounds of feed to produce a pound of trout. Now it takes three and one-half pounds, and in some instances, less to produce a pound of trout. Per-man-production now may be as high as 15,000 or 18,000 pounds in one year at individual hatcheries, considerably higher than it was some years ago, but the average is about one-third of this.

Larger hatcheries have proved to be more efficient than smaller ones. Many factors control the size of the hatchery, most important of which is the quality and quantity of the available water supply. While 50 degree water is ideal for trout hatching the spawners do better in water somewhat cooler than that.

Trout hatcheries may be equipped with troughs or tanks for hatching and early rearing, and either ponds, concrete raceways or small lakes for summer growth. Cold storage space for about one-half of the year's supply of meats and other perishables and a fish food preparation room equipped with proper slicers, grinders and mixers are all part of a well-established hatchery.

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